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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/578,872	02/28/2007	Cliff Aaby	9501US1 (287846US28PCT)	8680
88095	7590	04/13/2011	EXAMINER	
ARRIS 3871 Lakefield Drive Suwanee, GA 30024			CHOKSHI, PINKAL R	
			ART UNIT	PAPER NUMBER
			2425	
			NOTIFICATION DATE	DELIVERY MODE
			04/13/2011	ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

mirho@fspllc.com

Office Action Summary	Application No. 10/578,872	Applicant(s) AABY ET AL.	
	Examiner Pinkal R. Chokshi	Art Unit 2425	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 18 March 2011.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 17-21 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 17-21 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>3/18/2011</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Arguments

1. Applicant's arguments filed 3/18/2011 with respect to claims 17-21 have been considered but are moot in view of the new ground(s) of rejection. See the new rejection below.

Claim Objections

2. **Claim 17** is objected to because of the following informalities: Claim 17 line 2 recites "...in the at first stream..." Delete --at--. Appropriate correction is required.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. **Claims 17-19 and 21** are rejected under 35 U.S.C. 103(a) as being unpatentable over US Patent 5,721,829 to Dunn et al (hereafter referenced as Dunn) in view of US Patent 5,790,173 to Strauss et al (hereafter referenced as Strauss), US Patent 6,032,181 to Bedgedjian (hereafter referenced as Bedgedjian) and US PG Pub 2005/0137958 to Huber (hereafter referenced as Huber).

Regarding **claim 17**, "a content on demand server system" reads on the user interface unit that is operable in a VOD mode to order and receive video

content programs from head-end (abstract) disclosed by Dunn and represented in Fig. 1.

As to "system adapted to: to receive from a set top box a marker obtained from the first stream and comprising position data for the first stream for which the set top box has paused or suspended viewing" Dunn discloses (col.6, lines 26-27, 39-55) that the STB transmits a pause message, such as a pointer, to identify the pause point of the VOD program in the memory location that matches to the juncture of the program when paused to the head-end.

As to "upon a signal from the set top box to resume streaming of the first stream from a position proximate to the position data indicated by the marker" Dunn further discloses (col.2, lines 8-18; col.7, lines 9-19) that when viewer changes from the VOD to a regular channel, head-end automatically pauses transmission of VOD program, and resume transmission of VOD program based on the program ID and pause point (pointer) stored the database.

As to "deliver a first audio and/or video stream and to insert markers in the at first stream, the markers comprising position data in the first stream" Dunn discloses (col.2, lines 4-18 and abstract) that the STB receives video content programs from head-end. However, Dunn does not explicitly teach that the server inserts markers in the stream and markers comprising position data in the stream. Strauss discloses (col.26, line 56-col.27, line 3) that the timestamps of the MPEG stream are used as time/position information marker that is delivered to the STB. Strauss further discloses (col.26, line 56-col.27, line 3) that the

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timestamp corresponding to the time the program was paused is stored at the STB and used later to resume from the portion of the program starting at the pause marker. Therefore, it would have been obvious to one of the ordinary skills in the art at the time on the invention to modify Dunn's system by using a stream with timestamps/markers already presented in the stream as taught by Strauss in order to provide accurate place of pause/resume point of a program.

Combination of Dunn and Strauss meets all the limitations of the claim except "to insert a particular number of markers into each time interval of the first stream and to communicate information to the set top box in a second stream." However, Bedgedjian discloses (col.2, lines 45-67) that there are number of markers included in a time interval as represented in Figs. 2-4. Bedgedjian further discloses (col.4, lines 15-21) that the QAM frequency is chosen to deliver the markers. Therefore, it would have been obvious to one of the ordinary skills in the art at the time of the invention to modify Dunn and Strauss' systems by inserting markers at each time interval as taught by Bedgedjian in order to indicate the time where an appropriate action needs to be taken.

Combination of Dunn, Strauss and Bedgedjian meets all the limitations of the claim except "to communicate the number of markers per interval in the first stream." However, Huber discloses (¶0011, ¶0076, ¶0085) that there are a predetermined number of time slots, shown by tags and markers, included in the video stream, where the information, such as number of time slots, are provided to the advertisers to bid for the slots. Therefore, it would have been obvious to

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one of the ordinary skills in the art at the time of the invention to modify Dunn, Strauss and Bedgedjian's systems by communicating the number markers information as taught by Huber in order to provide detail of the markers to user.

Regarding **claim 18**, "the content server of claim 17 further adapted to: communicate the number of markers per interval in the first stream to the set top box in a quadrature amplitude modulated stream on a predetermined channel" combination of Dunn, Strauss, Bedgedjian, and Huber teaches this limitation, where Bedgedjian discloses (col.4, lines 15-21) that the QAM frequency is chosen to deliver the markers. In addition, same motivation is used as rejection to claim 17.

Regarding **claim 19**, "a set top box system adapted to: receive a first audio and/or video stream" reads on the STB that receives digital video signal from the head-end (col.2, lines 51-57) disclosed by Dunn and represented in Fig. 1 (element 26).

As to "the first stream comprising markers indicating positions in the first stream and comprising position data at which the set top box has paused or suspended viewing of the first stream" Dunn discloses (col.2, lines 4-18 and abstract) that the STB receives video content programs from head-end. Dunn further discloses (col.6, lines 26-27, 39-55) that the STB transmits a pause message, such as a pointer, to identify the pause point of the VOD program in

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the memory location that matches to the juncture of the program when paused to the head-end. However, Dunn does not explicitly teach that the markers indicating positions in the first stream. Strauss discloses (col.26, line 56-col.27, line 3) that the timestamps of the MPEG stream are used as time/position information marker that is delivered to the STB. Strauss further discloses (col.26, line 56-col.27, line 3) that the timestamp corresponding to the time the program was paused is stored at the STB and used later to resume from the portion of the program starting at the pause marker. Therefore, it would have been obvious to one of the ordinary skills in the art at the time on the invention to modify Dunn's system by using a stream with timestamps/markers already presented in the stream as taught by Strauss in order to provide accurate place of pause/resume point of a program.

Combination of Dunn and Strauss meets all the limitations of the claim except "to communicate to a server system providing the first stream a marker obtained from the first stream and to extract from a second stream a number of markers per interval in the first stream." However, Bedgedjian discloses (col.2, lines 45-67) that there are number of markers included in a time interval, where the device communicates with the server using the marker as represented in Figs. 2-4. Bedgedjian further discloses (col.4, lines 15-21) that the QAM frequency is chosen to deliver the markers. Therefore, it would have been obvious to one of the ordinary skills in the art at the time of the invention to modify Dunn and Strauss' systems by inserting markers at each time interval as

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taught by Bedgedjian in order to indicate the time where an appropriate action needs to be taken.

Combination of Dunn, Strauss and Bedgedjian meets all the limitations of the claim except “to communicate a number of markers per interval in the first stream.” However, Huber discloses (§0011, §0076, §0085) that there are a predetermined number of time slots, shown by tags and markers, included in the video stream, where the information, such as number of time slots, are provided to the advertisers to bid for the slots. Therefore, it would have been obvious to one of the ordinary skills in the art at the time of the invention to modify Dunn, Strauss and Bedgedjian’s systems by communicating the number markers information as taught by Huber in order to provide detail of the markers to user.

Regarding **claim 21**, “a method comprising: receiving from the set top box a marker obtained from the first stream and comprising position data for the first stream for which the set top box has paused or suspended viewing” reads on the user interface unit that is operable in a VOD mode to order and receive video content programs from head-end (abstract) disclosed by Dunn and represented in Fig. 1. Dunn also discloses (col.6, lines 26-27, 39-55) that the STB transmits a pause message, such as a pointer, to identify the pause point of the VOD program in the memory location that matches to the juncture of the program when paused to the head-end.

As to “upon a signal from the set top box resuming streaming of the first stream from a position proximate to the position data indicated by the marker” Dunn further discloses (col.2, lines 8-18; col.7, lines 9-19) that when viewer changes from the VOD to a regular channel, head-end automatically pauses transmission of VOD program, and resume transmission of VOD program based on the program ID and pause point (pointer) stored the database.

As to “delivering the first stream and inserting markers in the first stream, the markers comprising position data in the first stream” Dunn discloses (col.2, lines 4-18 and abstract) that the STB receives video content programs from head-end. However, Dunn does not explicitly teach that the server inserts markers in the stream and markers comprising position data in the stream. Strauss discloses (col.26, line 56-col.27, line 3) that the timestamps of the MPEG stream are used as time/position information marker that is delivered to the STB. Strauss further discloses (col.26, line 56-col.27, line 3) that the timestamp corresponding to the time the program was paused is stored at the STB and used later to resume from the portion of the program starting at the pause marker. Therefore, it would have been obvious to one of the ordinary skills in the art at the time on the invention to modify Dunn's system by using a stream with timestamps/markers already presented in the stream as taught by Strauss in order to provide accurate place of pause/resume point of a program.

Combination of Dunn and Strauss meets all the limitations of the claim except “inserting a particular number of markers into each time interval of a first

stream and communicating information to a set top box in a second stream.”

However, Bedgedjian discloses (col.2, lines 45-67) that there are number of markers included in a time interval as represented in Figs. 2-4. Bedgedjian further discloses (col.4, lines 15-21) that the QAM frequency is chosen to deliver the markers. Therefore, it would have been obvious to one of the ordinary skills in the art at the time of the invention to modify Dunn and Strauss’ systems by inserting markers at each time interval as taught by Bedgedjian in order to indicate the time where an appropriate action needs to be taken.

Combination of Dunn, Strauss and Bedgedjian meets all the limitations of the claim except “communicating the number of markers per interval in the first stream.” However, Huber discloses (¶0011, ¶0076, ¶0085) that there are a predetermined number of time slots, shown by tags and markers, included in the video stream, where the information, such as number of time slots, are provided to the advertisers to bid for the slots. Therefore, it would have been obvious to one of the ordinary skills in the art at the time of the invention to modify Dunn, Strauss and Bedgedjian’s systems by communicating the number markers information as taught by Huber in order to provide detail of the markers to user.

5. **Claim 20** is rejected under 35 U.S.C. 103(a) as being unpatentable over Dunn, Strauss, Bedgedjian, and Huber as applied to claim 19 above, and further in view of US PG Pub 2008/0022296 to Iggulden (hereafter referenced as Iggulden).

Regarding **claim 20**, combination of Dunn, Strauss, Bedgedjian, and Huber meets all the limitations of the claim except “the set top box of claim 19, further adapted to: monitor the first stream for the number of markers per interval; and if the number of markers per interval is not detected, to signal the server system to terminate the first stream.” However, Iggulden discloses (§0064) that when the second event marker does not occur during the pre-determined time interval, the recording/receiving of the program is discarded as represented in Fig. 5. Therefore, it would have been obvious to one of the ordinary skills in the art at the time of the invention to modify Dunn, Strauss, Bedgedjian, and Huber’s systems by using marker to determine the termination or continuation of rendering of the A/V program as taught by Iggulden in order to charge the user for VOD content based on the amount of time watched.

Conclusion

6. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

- US Patent 7,096,484 to Mao
- US Patent 7,100,187 to Pierzga
- US PG Pub 2010/0036945 to Allibhoy

7. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP

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§ 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Pinkal R. Chokshi whose telephone number is (571) 270-3317. The examiner can normally be reached on Monday-Friday 8 - 5 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Brian T. Pendleton can be reached on 571-272-7527. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Pinkal R. Chokshi/
Examiner, Art Unit 2425

/Brian T Pendleton/
Supervisory Patent Examiner, Art Unit 2425